

ALLNIC AUDIO

T-2000 30th ANNIVERSARY STEREO INTEGRATED AMPLIFIER



OWNER'S MANUAL

ALLNIC AUDIO T-2000 *30th ANNIVERSARY* STEREO INTEGRATED AMPLIFIER

Thank you for purchasing the Allnic Audio T-2000 *30th Anniversary* Stereo Integrated Amplifier. We are certain your trust in Allnic Audio and its dealers worldwide, as well as your appreciation for the sound of this high-quality device, will be rewarded by its excellent operation for years to come.

Please read this entire manual before you connect the Allnic Audio T-2000 30th Anniversary Stereo Integrated Amplifier to the other components of your system and the wall outlet. Failure to follow the guidance in this manual may result in voiding the warranty.

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** Information and specifications for the Allnic Audio product described in this manual are subject to change without notice. TABLE OF CONTENTS:

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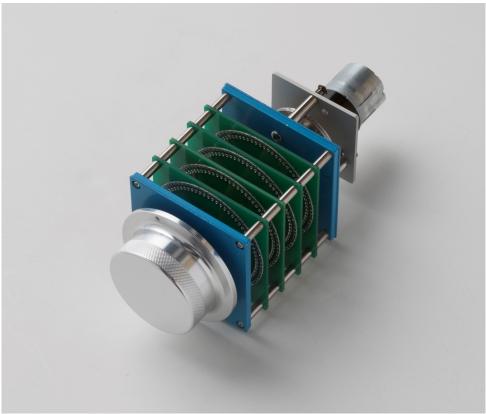
Please read about SAFETY before you attempt to use the T-2000 *30th Anniversary* Stereo Integrated Amplifier - we care about our customers and the equipment, and we want you to enjoy this product for a long time!

INTRODUCING THE T-2000 30th ANNIVERSARY STEREO INTEGRATED AMPLIFIER

The T-2000 *30th Anniversary* stereo integrated amplifier is Allnic Audio's first stereo integrated amplifier to use the new KT170 power tube. Like all Allnic Audio products, the T-2000 *30th Anniversary* has Permalloy (iron and nickel alloy) for its transformer cores. Allnic is grateful to Mr. G.W. Elmen of Western Electric for inventing Permalloy for transformer core use, and in so doing, providing an enormous service to recorded music listeners everywhere.

The T-2000 30th Anniversary has the following features:

- 120 watts of high-power output per channel in beam tetrode (pentode) mode and 60 watts in triode. The T-2000 *30th Anniversary* is a push-pull, triode/tetrode switchable integrated amplifier.
- 61 STEP CONSTANT IMPEDANCE BRIDGED TYPE ATTENUATOR A world's "first of its kind" for Allnic Audio - The T-2000 30th Anniversary does not employ a digital IC volume control or a low-cost carbon film volume control with a motor. The T-2000 30th Anniversary uses the WORLD'S FIRST 61 step, constant impedance, "bridged" type attenuator. Allnic's new attenuator is now the most sophisticated on the market, and we believe, without a doubt, also the absolute best sounding. With fixed impedance and no (± 0db) channel imbalance at any volume level, this revolutionary and currently unique, oil clutched, motorized attenuator will astound users with its elevation of the fidelity and purity of any system in which it finds a home.



The Allnic 61 step constant impedance bridged type attenuator

- Powerful Driving Circuitry. Allnic believes in the importance of using high-quality, low noise and powerful driving circuitry in all its amplifying devices. The T-2000 *30th Anniversary* uses only two stages of driving circuit to achieve +40dB of voltage gain, instead of three or four stages as one finds in many conventional integrated amplifiers. This results in less coloration and more speed in signal/sound reproduction. In the T-2000 *30th Anniversary*, we employ the D3a tube in triode mode as the second stage driver tube, with a load of about 9K ohms, and using 12mA of current. The listener can easily hear and even "feel" the differences between this design and other, more conventional, ones. Please imagine, as you listen to the T-2000 *30th Anniversary*, its sound compared to the sound of an integrated amplifier with conventional 12AU7 or 12BH7's used as drivers, with a load of about 47K ohm, and using 2 to 3mA of current.
- "Full Engagement" Output Transformers. Conventional output transformers use pre-set secondary windings to accommodate 4, 8 and 16 ohm loudspeaker loads. However, these conventional transformers utilize only one secondary winding at a time, while the other secondary windings remain "idle". This approach has two adverse effects. First, the output transformers are not working at their maximum efficiency, reducing their output relative to their potential. Second, the "idle" windings are not actually "idle"; they are subject to parasitic oscillations, producing their own "signal". This undesirable electrical information is additive to the transformers address these issues by having 4 independent, secondary windings which are always fully connected, never "idled". This means that all secondary windings are always connected to your loudspeakers, regardless of which output switch position you use (4 ohms or 8 ohms or 16 ohms, depending on the factory configuration you have selected). The result is that there is neither a loss of transformer output efficiency, nor the introduction into the output signal of distortion from parasitic oscillations of the secondary windings.
- Large Nickel/FeSi Core Output Transformers. As with our other models, Allnic uses very large output transformers (96 mm) with nickel, mixed with FeSi, cores. This provides for higher inductance with fewer windings than other designs can provide and results in the great benefit of an extremely wide range of output frequencies.
- "Soft-start" Circuitry. Allnic uses soft start circuitry that, after sufficient warm-up only, provides the high voltage supply to the plate of each tube. This protective design results in prolonged tube life and fewer and less frequent issues with tube performance.
- Analog Power Tube Current Monitors. In order to provide constant current (bias) monitoring for the
 power tubes, Allnic uses a separate analogue current meter for each tube. The meters make it
 exceptionally easy to see the status of each tube at any time and to respond immediately to any
 variation in bias by use of the bias control knob for the relevant tube. The meters offer a simple,
 unambiguous indication of each tube's status compared to conventional LED bias monitors.
- "On-the-Fly" Triode/Tetrode Switching. Switching between triode and tetrode operation can be done "on-the-fly" at any time while the amplifier is in use.
- Beautiful 10KHz square wave response. See Figures 1-3.

• As are all Allnic Audio products, the T-2000 *30th Anniversary* is fully RoHS (EU Reduction of Hazardous Substances regulation) compliant in construction and materials.

WHAT'S IN THE BOX?

Please check that the shipping box contains the following:

- One (1) Allnic T-2000 30th Anniversary stereo integrated amplifier
- One (1) Allnic remote control
- One (1) Allen wrench for screws on top of the tube chimneys
- One (1) 15 Amp IEC type power cord
- One (1) Owner's Manual
- One (1) Hex/Allen key

Note:

- 1) The T-2000 *30th Anniversary* ships with the tubes installed.
- 2) The T-2000 30th Anniversary will work with most IEC type aftermarket power cords. The Allnic ZL-3000, ZL-5000 and ZL-8000 power cables will make an excellent match. Of course, only you can determine the power cord that works most synergistically with the T-2000 30th Anniversary in your system.
- 3) Be sure the T-2000 30th Anniversary is set for the AC voltage of your location. If it is not, <u>DO NOT</u> connect it to your AC outlet. Please contact your Allnic dealer.

We advise that you keep the boxes and other packing materials that your T-2000 *30th Anniversary* came in. It will be useful if you sell your T-2000 *30th Anniversary* or in the unlikely event you need to ship it for service.

SAFETY

- Remove ALL protective cushioning material (cardboard around tubes) inside the tube chimneys before operation. The tube chimneys should contain NOTHING except the tubes.
- Disconnect the power cord by pulling the plug, not the cable.
- Do not attempt any repairs. Do not remove the unit's chassis cover without specific authorization from your Allnic Audio dealer.
- Keep the power cord away from heat sources.
- Keep the unit away from liquids do not allow any liquid to enter the interior of the unit.
- When the unit is moved from a cold to a warm environment, allow sufficient time for any condensation to evaporate before plugging the T-2000 *30th Anniversary* into an AC connection.
- Do not attempt any repairs.
- See the notes on "Location, Location, Location".
- DO NOT leave the T-2000 30th Anniversary turned on for extended periods of time NEVER 24/7, even for (an unnecessary) "break-in" period. This will greatly increase the likelihood of premature tube and/or internal failures. Power on the unit and let it warm up for some minutes; then, when finished a listening session, do a complete power off.

CLEANING

A. Chassis and glass/plastic

Use only a soft, lint-free cloth, dampened slightly with water only (NO cleaning fluids!), to clean the faceplate, chassis and tube chimneys of the T-2000 *30th Anniversary*.

B. Connectors

You may use any good quality contact cleaner recommended for such applications to clean the contacts from time to time, as you deem appropriate.

INITIAL SET-UP

A. LOCATION, LOCATION, LOCATION

Like all audio products using tubes, the Allnic Audio T-2000 *30th Anniversary* needs to be placed on a solid stand in a location that provides good air circulation around, above and below the stereo amplifier.

- DO NOT cover the top of the T-2000 *30th Anniversary*.
- DO NOT place the unit on carpet or foam.
- DO NOT subject the unit to knocks and shocks as you move it around. This advice is meant particularly for those who may want to place the T-2000 *30th Anniversary* on some kind of after-market isolation feet or similar devices. Dropping one side of the T-2000 *30th Anniversary*, or the whole of the unit may cause damage and may void warranty.
- DO NOT place the unit near a strong light or heat source.
- DO NOT place anything heavy on the unit.
- DO NOT allow rubber or vinyl materials to rest on the chassis for long periods of time. This could discolour the metal.
- DO place the unit on a shelf or stand that is stable and not subject to vibration or sudden shock.
- DO consider using a high-quality power cord, inter-connects and speaker cables. The T-2000 *30th Anniversary* is a highly sensitive piece of electronic designed for neutrality and will output what you put into it. **Allnic's Zero Loss Technology cables** will work synergistically with the T-2000 *30th Anniversary*.
- DO try to place T-2000 *30th Anniversary* away from major sources and potential receivers of RFI and EMI. Though well shielded, the T-2000 *30th Anniversary* will function best away from large power transformers and other sources of such interference and from other equipment that could be susceptible to/sources of such forms of interference.

B. INPUTS

There are three (3) RCA type female input pairs and two (2) balanced (XLR) input pairs. Facing the rear of the chassis, the input connections are to the right of the IEC power input. The left channel connector is the top one in each line input pair. Please refer to Figure 5.

You can use the T-2000 *30th Anniversary* with a separate preamplifier by connecting the outputs of the preamplifier to one pair of the T-2000 *30th Anniversary* 's inputs. HOWEVER, please use caution when you do this. If you have both volume controls above zero on turn on, especially with signal, you could damage your speakers because of the extreme volume level from the combined gain of both the preamplifier and the T-2000 *30th Anniversary*. On initial turn on with a separate pre-amp, you should have the volume on BOTH units set to zero. Then use the volume control on both the pre-amp and the T-2000 *30th Anniversary* to set the volume control on the T-2000 30th Anniversary so that you can use the preamplifier volume control as the main volume control – OR vice versa, as you prefer.

C. SPEAKER TERMINALS

The T-2000 *30th Anniversary* is equipped with two pairs of high-quality speaker terminals. These terminals are located at the left of the back of the chassis (the right, facing the front of the chassis). Facing the front of the chassis, the right channel pair is on the outside right and the left channel pair is to their left, on the other side of the impedance toggle. The terminals accept bare wire (not recommended) and spade and banana type connectors. Positive terminals are on top; negative below. Please refer to Figure 5.

D. POWER CONNECTION

Connect the input interconnects and the speaker cables before you insert the power cable into the receptacle at the centre of the chassis rear. The T-2000 *30th Anniversary* uses a standard 15 amp three prong male IEC connection for AC input. You need to use a power cord with a female 15 amp three prong IEC connector at one end. **Please refer to Figure 5. Please note that use of a three phase AC power source or an AC regenerating power conditioner may cause hum.**

The T-2000 *30th Anniversary* you have purchased is set internally for AC 110 volt – 60 Hz **or** 230 volt - 50/60 Hz operation.* It is possible to change this to another AC setting without return of the unit to the factory for re-wiring. Please contact your Allnic dealer for assistance.

*120 or 240 volt is also available on request.

INITIAL POWER-ON

Once you have your T-2000 *30th Anniversary* in place and all connections have been made to your turntable and preamplifier, you are ready to turn on the power for your T-2000 *30th Anniversary*; before you power it up, though, be sure you have:

- removed ALL the cushion materials (cardboard around tubes) from inside the tube chimneys.
- checked that power tubes are snug in their sockets. Use caution so as not to break the centre pin of the KT170's octal base. Allnic Audio, its dealers and authorized representatives are not responsible for such an outcome.
- ensured the interconnects are firmly attached.
- Turned on your source(s) and zeroed their volume controls or muted them.
- turned the preamplifier's and T-2000 *30th Anniversary's* volume controls down to zero (if you use that combination).
- Checked that all your system's connections are properly mapped and secure.

Turn on the T-2000 *30th Anniversary* by pushing in the power switch button located at the right of the front panel (facing the front of the unit) to the "on" position (see Figure 6). After a brief delay (the soft start), the T-2000 *30th Anniversary* will apply current to the power tubes. The power button on the remote control, at its top left-hand corner (refer to Figure 7), is inoperative for the T-2000 *30th Anniversary*. It is normal for it to take a few minutes for the amplifier to stabilize and the needles of the two meters to rise to their correct position (see the next section, below).

TUBES AND TUBE BIAS

The T-2000 *30th Anniversary* uses the following tubes:

- Four (4) x KT170
- Two (2) x 6J4
- Four (4) x D3a

Because of the individual bias for each KT170, it is not necessary to use matched KT170 tubes in the T-2000 *30th Anniversary*. You may use any KT170 type tube in the T-2000 30th Anniversary.

On initial turn on, you will have to set the bias for each KT170. Between and to the outside of each channel pair of KT170s is a small toggle switch. Pushing the toggle toward the rear of the chassis allows you to read the meter for the rear KT170 for that side; pushing the toggle toward the front switches the meter to the front KT170. Using an appropriate screwdriver, you must turn the yellow potentiometer for each KT170 to adjust the bias so that the needle is in the centre of the area between the two parallel lines of the meter. Please refer to Figure 8 for tube and potentiometer locations. **DO NOT in any circumstances try to turn a potentiometer past its point of resistance in either direction**; doing so will damage the potentiometer and void the warranty. If a meter will not balance, please contact your Allnic dealer for assistance.

If the needle of the current meter for a KT170 is too far to the left or outside to the left of the parallel lines on the meter face, adjust the potentiometer adjacent to that tube's location by turning it clockwise until the needle is again in the centre between the meter's parallel lines. If the meter needle has moved to the right of the parallel lines on the meter face, turn the potentiometer control counterclockwise to correct.

You may need to repeat this process from time to time, and always when a KT170 is replaced.

As with all tube equipment, changing tubes from one manufacturer's to another's may alter the sonic characteristics of the equipment.

OPERATION

When the power is on, the current meters on the face of the chassis will illuminate. From this point on, the T-2000 *30th Anniversary's* operation is straight-forward. The face of the chassis has an input selector control knob and a volume control knob (refer to Figure 4). The remote control (refer to Figure 7) will also control the input selections (using the number buttons or the buttons labelled "CH") and the volume (using the buttons labelled "VOL" and "MUTE"). However, it will not control the power to the T-2000 *30th*

Anniversary, which must be switched on and off manually as described above. Remove the screws on the bottom of the remote control to replace batteries.

Tetrode/Triode mode switching may be done "on the fly", that is, without muting or otherwise adjusting your system's controls. Tetrode mode provides more power. Switch between the two modes to determine which you prefer. Your preference may apply all the time, or it may change for different types of music or recordings. To switch between tetrode and triode modes, use the button on the left-hand side of the front of the chassis. Button out is tetrode; button depressed is triode (refer to Figure 4).

When you are finished listening, turn off your T-2000 *30th Anniversary* stereo amplifier(s) first; then, turn off your preamplifier and sources. If the T-2000 *30th Anniversary* is in triode mode at turn-off, it will produce a sound through the speakers as the amplifier's relays turn off. Though this sound is harmless to speakers; however, some users may prefer not to hear it. To avoid the sound, simply switch the T-2000 *30th Anniversary* to tetrode mode prior to turning it off.

In the case of any failure, please contact your Allnic Audio dealer for assistance.

THE CURRENT METERS

The two illuminated meters indicate the current supplies to the four KT170 power tubes in the T-2000 *30th Anniversary* (refer to Figure 8). As noted in "Tubes and Tube Bias" above, there is a potentiometer for each KT170 (Refer to Figure 8).

When you turn on the T-2000 *30th Anniversary*, the needle of the current meter for each KT170 should be between the two parallel lines on the meter face. Any error of current supply to or failure of a KT170 tube is indicated by the needle on the meter moving out from between these two parallel lines.

If a meter's needle moves below the left parallel line on the meter face during operation, this indicates a failure of the related KT170 tube and output on that channel will likely have been lost. You must **turn off and disconnect the T-2000** *30th Anniversary* from the AC supply and replace both the KT170 and probably the fuse for that tube (0.5A, 250V, 5x20mm slow blow).

To replace a fuse, turn off and disconnect the T-2000 30th Anniversary from the AC supply; then, using a screwdriver, simply turn the top of the fuse cap counterclockwise. It will spring out holding the fuse. Replace the fuse in the fuse cap first with a good, inexpensive one of the same rating if you are using a more costly aftermarket fuse. Push the fuse cap down and turn it so it locks. If you have any questions about doing this, please contact your Allnic Audio dealer for assistance.

When changing a KT170, ensure first that you use its associated yellow potentiometer to trim back the bias below (to the left of) the parallel lines on the meters first. This will prevent the new KT170 from drawing too much current at first turn-on and tripping its fuse and/or the power fuse at the IEC connection. No harm is done to the original tubes by turning the bias down, nor is any harm done to the new tubes by having them biased low to start. Use caution so as not to break the centre pin of the KT170's octal base. Allnic Audio, its dealers and authorized representatives are not responsible for such an outcome.

Once a new KT170 and its associated fuse (if required) are installed and the T-2000 *30th Anniversary* is turned on, following the instructions in "Tubes and Tube Bias" above, use the potentiometer to adjust the bias so the needle of the meter for the new power tube is again between the two parallel lines. **Again, DO NOT in any circumstances try to turn a potentiometer past its point of resistance in either direction; doing so will damage the potentiometer and void the warranty.** If a meter will not balance, please contact your Allnic dealer for assistance.

If a meter's needle falls far to the right, likely accompanied by loss of signal and/or tube noise, a 6J4 or D3A tube(s) has failed. If you do not have access to an appropriate tube tester to test the tubes, you can determine the failed tube(s) by, first, turning off and disconnecting the T-2000 *30th Anniversary* from the AC supply and swapping the 6J4 tubes to opposite channels. If the problem follows the tube, replace the tube with a good 6J4. If that does not remedy the problem, following the same procedure, swap first one pair of D3A tubes between channels, and then the other if the problem persists. Again, if the problem follows a tube, replace it (them) with a good one.

If the 5.0 Amp AC mains fuse, located at the IEC input (see Figure 5), has failed, it can be replaced with the spare fuse provided in the tray in the IEC mount, or first try a good, inexpensive one of the same rating if you are using a more costly aftermarket fuse. **POWER OFF and disconnect the T-2000** *30th Anniversary* **from the AC source to change the mains fuse.** Again, if you have any questions about doing this, please contact your Allnic dealer for assistance.

As experienced users of vacuum tube equipment know, any tube can be carefully machine tested and selected and re-tested under real use conditions at the factory but still fail early. Because of their age, vintage tubes can be especially fragile and more prone to fail prematurely in use despite intensive testing. Included tubes are guaranteed for the time and per the conditions in the Warranty section below. It may take shipping time, however, to transport replacements to you. As many experienced users do, you may want to acquire at your own cost and risk a set of back-up replacement tubes to have on hand for immediate use "just in case".

Allnic Audio and its authorized representatives make no representations nor any warranty regarding the quality of tubes obtained from third parties and are not responsible for any issues or losses relating thereto. All consequences of changing or attempting to change tubes are borne by the user unless by express agreement between the owner and the owner's Allnic dealer. Allnic Audio and its authorized representatives are not liable in any way whatsoever for any damage to the T-2000 *30th Anniversary* or any injury or loss incurred by the user resulting from the user changing or attempting to change tubes.

WARRANTY

FOR WARRANTY SERVICE, PLEASE CONTACT YOUR AUTHORIZED ALLNIC DEALER.

Except for the tubes, this Allnic Audio product is warranted against materials and manufacturing defects only for two (2) years from date of purchase. The tubes in this product are warranted against materials and manufacturing defects only for six (6) months from date of purchase. Date of purchase is the date indicated on the invoice issued by Allnic Audio or its authorized representative for original purchase of the new product. The warranty does not cover any damage occurring during product shipment at any time, nor any damage occurring as a result of any of this product's owner's or owners' negligence or willful mistreatment. Failure to operate or care for this product in accordance with instructions in this manual will be deemed negligent. For the warranty to be valid, this product must be returned first to Allnic Audio's authorized representative for or modification of this Allnic Audio product at any time performed without specific authorization from Allnic Audio or its authorized representative will void the warranty. Allnic Audio and its authorized representatives shall be the sole determiners of whether the warranty has been voided. Provided that the warranty has not been voided, the warranty is transferable for the balance of the original purchaser's warranty period.

The warranty covers parts and labour only. If required for warranty service, shipping of this product to and return to product owner from an authorized Allnic representative will be at product owner's sole cost. In the case of required factory warranty service, shipping to Korea shall be at product owner's sole cost. Provided that Allnic has determined that the warranty is not void, Allnic will pay the cost of return shipping to product owner. If Allnic determines that the warranty is void, return shipping to product owner will be at produc

After expiry of the applicable warranty period or if the warranty is void, Allnic Audio and its authorized representatives are not responsible for nor obligated in any manner whatsoever to undertake, or to cover or reimburse the costs of any repairs or modifications to this product.

The warranty does not cover and Allnic Audio and its authorized representatives are not responsible for any incidental costs or damages to the person or property of original purchaser, any subsequent owner of this product, or any third party occurring as a result of any malfunction or misuse of this product however and whenever caused.

SPECIFICATIONS FOR THE ALLNIC AUDIO T-2000 30th ANNIVERSARY STEREO INTEGRATED AMPLIFIER

Output Power:	120w/channel beam tetrode 60w/channel triode (8 Ω load, at 1KHz)
Distortion:	0.17% at 1KHz, 2.83V
Frequency Response:	20Hz - 20KHz Flat
S/N Ratio:	-80dB (CCIR, 1KHz)
Damping Factor:	8 at 8 Ω load at 1KHz
Voltage gain:	+40dB
Input Impedance:	10K Ω (single-ended, unbalanced)
Input Sensitivity:	0.3V for rated power
Tubes:	KT170 x 4 (power tube) No equivalent 6J4 x 2 (1 st stage driver) Equivalent to 6J4W, 6J4WA, 6J4WB D3a x 4 (2 nd stage driver) Equivalent to 7721
Fuses:	 AC Mains: AC 5A, 250V 5x20mm slow-blow for 110/120V regions AC 3A, 250V 5x20mm slow-blow for 230/240V regions KT170 Tubes: 0.5A, 250V slow-blow 5x20mm x 4)
Dimensions:	(W x D x H) 440mm (17 inches) x 480mm (19 inches) x 300mm (12 inches)
Weight:	36Kg (80 lbs) Net 41 Kg (91 lbs) Shipping

FIGURES

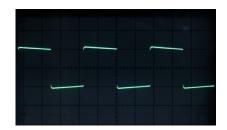


Figure 1 - Square Wave 50Hz

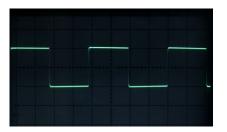


Figure 2 - Square Wave 1KHz

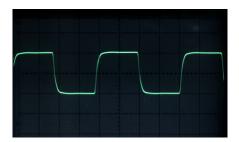


Figure 3 - Square Wave 10KHz

Measured by LEADER LAG-126 Audio Signal Generator and KENWOOD CS-4125 Oscilloscope

Figure 4 – T-2000 30th Anniversary Stereo Integrated Amplifier - Front Panel View

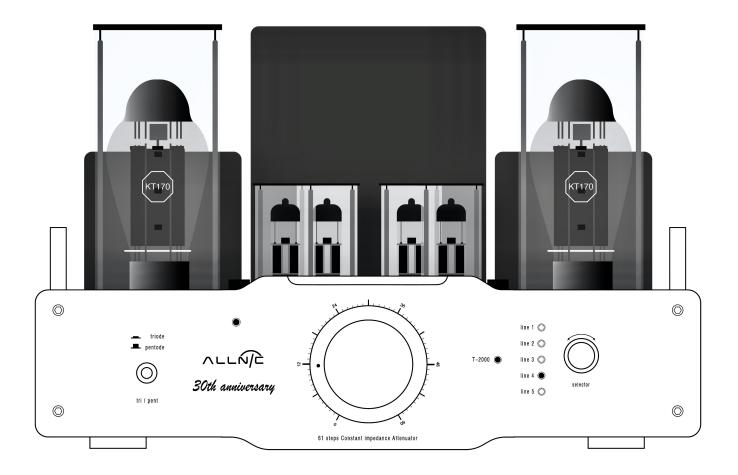
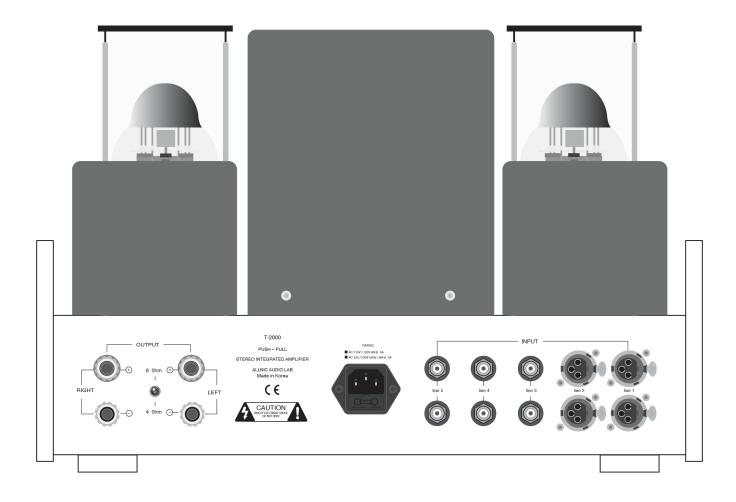


Figure 5 – T-2000 30th Anniversary Stereo Integrated Amplifier - Rear Panel View





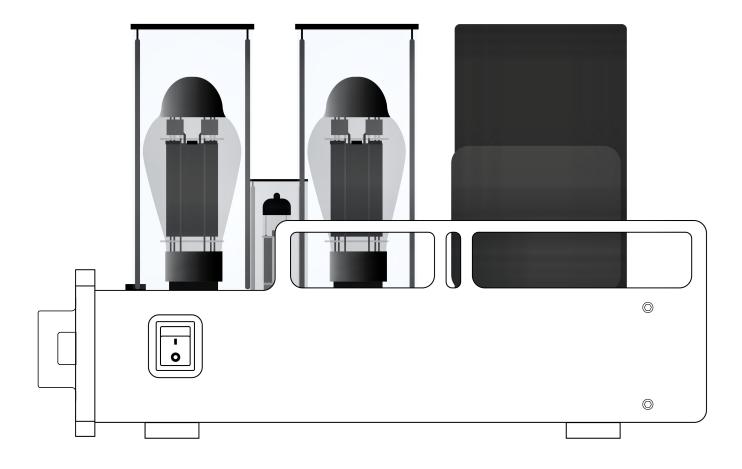


Figure 7 – T-2000 *30th Anniversary* Stereo Integrated Amplifier - Remote Control

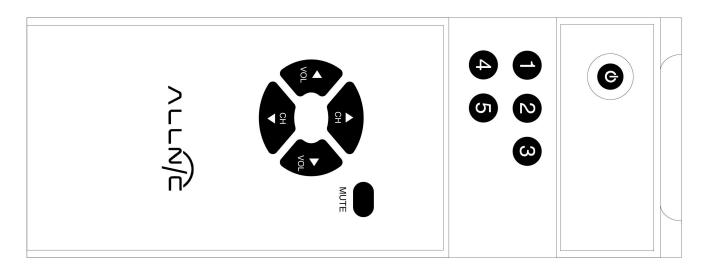


Figure 8 – T-2000 30th Anniversary Stereo Integrated Amplifier - Chassis Top View

